

I claim:

- 5 1. A process for transmission of information between
at least two devices according to which elements of
information which are succeeding each other in a time
sequence are passed along over an electrical or optical
support, said elements of information being made of a
10 packet of bits forming messages which comprise one or more
data and/or addresses of the devices for which these data
are intended, said process causing no interference with the
existing UART based communication systems of the devices,
and allowing nevertheless the increase of the amount of
15 various distinct messages which a system is able to convey,
the process comprising :
- 20 - generating a serial message coded by means of a time
sequence of binary transitions called bits;
 - reducing the time length of all bits in the message by
changing them into shorter bits called "reduced bits", in
order to insert additional bits whose half duration falls
25 at the moment in time where the transitions between
unchanged bits occurred when no additional bits are
inserted
 - keeping the half duration point of all reduced data bits
30 to the same place as they were in the unchanged message
 - keeping the total duration of the message containing the
additional bits identical to the total length of the
unchanged message.

2. The process of claim 1 wherein the duration of the data bits is reduced by 50 % and the duration of the start and stop bits is reduced by 25%.

3. A process according to claim 1 wherein the support is a cable.

4. A process according to claim 1 wherein the time sequence of binary transitions is implemented as a possible presence of a current flowing through the electrical support and having an OFF state and an ON state materialized with, respectively, an absence and a presence of a current through said electrical support

5. A process according to claim 1 wherein the messages comprises data bits, a stop bit and a start bit and wherein the duration of the original data bit is reduced by 50 % and the duration of the original start and stop bits are reduced by 25%.

6. A process according to claim 1 wherein the transmission of information is compliant with the MIDI standard and the message is a MIDI message.

7. A process according to claim 1 wherein in order to retrieve the content of the message, the signal is triple sampled.

8. A process according to any of the claims 1 wherein the content of the message is retrieved by comparing the changes in the signal against timing references.

9. A process according to claim 8 wherein there are two timer/counters, the first being restarted each time a level change is detected, the second being used in determining the end of the message in case there are no level changes to make the last bit or bits of the message.

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10. An arrangement for the communication of information allowing the transmission of a larger quantity of information between at least two devices than according to a first communication standard, comprising:

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- means for connecting a first device to a second device through an electrical support;

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- means for causing a flow of information between the two devices as elements succeeding each other in time sequence on the electrical support and materialized by an absence and a presence of a current within the electrical support, said information being made of a packet of bits forming messages which comprise one or more data and/or addresses of the devices for which these data are intended,

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- each device comprising an emitter section and a receiver section compatible with the state of the art of said first communication standard,

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- means for coding information both in said first communication standard and in a second enlarged communication standard

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- said means for coding generating a serial message coded by means of a time sequence of binary transitions forming said bits , wherein said means for coding the enlarged communication standard comprises a circuitry replacing a standard UART driving the line amplifier, said circuit being able to modulate the flow of binary information in time in order to reduce the time length of all bits in the message by changing them into shorter bits , called "reduced bits", and in order to insert additional bits

whose half duration falls at the moment in time where the transitions between unchanged bits occurred according to the first communication standard (when no additional bits are inserted).

- 5 11. The arrangement according to claim 10 wherein the first communication standard is according to the MIDI standard.

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